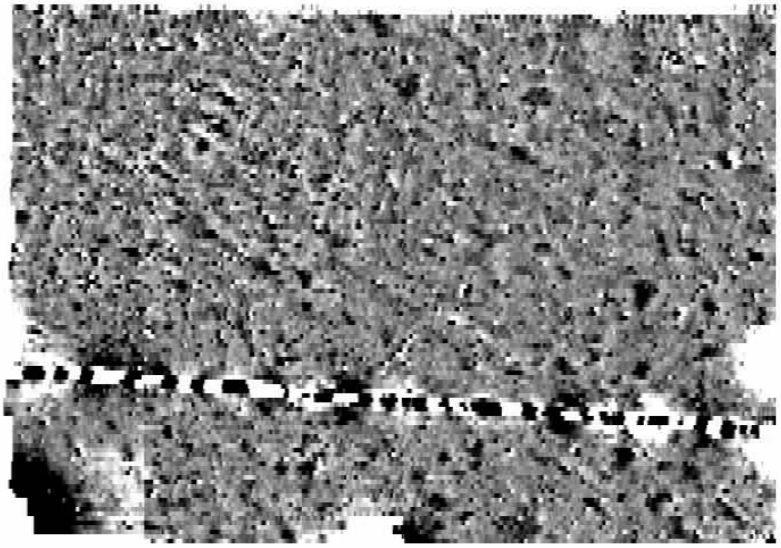
Northamptonshire County Council

Northamptonshire Archaeology

Cliveden Stud, Taplow, Buckinghamshire: Archaeological Geophysical Survey

July 2007



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August 2007

Report 07/128

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Approved by	Andy Chapman		07 / 08 / 07

OASIS **REPORT FORM**

PROJECT DETAILS		
Project name	Cliveden Stud, Taplow, Buckinghamshire: Archaeological Survey	
Short description (250 words maximum)	Northamptonshire Archaeology was commissioned by Tony Kimber of Geo-Plan Consultants to undertake a magnetometer survey across a proposed development area at Cliveden Stud, Taplow, Buckinghamshire. The site comprised circa 15.4ha of pasture land, in eight fields, situated immediately to the north of Taplow. Clusters of anomalies were discovered, indicating both the presence of ditches and either pitting or geological variation. Anomalies of more recent date were also encountered, including those relating to modern utlities.	
Project type	Geophysical Survey	
Site status (none, NT, SAM etc)	none	
Current Land use	Pasture	
Future work		
Monument type/ period		
Significant finds (artefact type and period)		
PROJECT LOCATION		
County	Buckinghamshire	
Site address (including postcode)	Cliveden Stud, Taplow	
Study area (sq.m or ha)	15.4ha (approx)	
OS Easting & Northing	SU 9138 8377	
Height OD		
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	David Radford, Buckinghamshire County Archaeological Service	
Project Design originator	N.A	
Director/Supervisor	Ian Fisher	
Project Manager	Adrian Butler	
Sponsor or funding body	Geo-Plan Consultants	
PROJECT DATE		
Start date	July 2007	
End date	August 2007	
ARCHIVES	**Location (Accession no.)**	**Content (eg pottery, animal bone etc)**
Physical		
Paper	Northamptonshire Archaeology	Survey notes
Digital	Northamptonshire Archaeology	Geophysical data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report (NA report)	
Title	Cliveden Stud, Taplow, Buckinghamshire: Archaeological Geophysical Survey July 2007	
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CLIVEDEN STUD, TAPLOW, BUCKINGHAMSHIRE
ARCHAEOLOGICAL GEOPHYSICAL SURVEY
JULY 2007

ABSTRACT

Northamptonshire Archaeology was commissioned by Tony Kimber of Geo-Plan Consultants to undertake a magnetometer survey across a proposed development area at Cliveden Stud, Taplow, Buckinghamshire. The site comprised circa 15.4ha of pasture land, in eight fields, situated immediately to the north of Taplow. Clusters of anomalies were discovered, indicating both the presence of ditches and either pitting or geological variation. Anomalies of more recent date were also encountered, including those relating to modern utlities.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by Tony Kimber of Geo-Plan Consultants to undertake a magnetometer survey across circa 15.4ha of pasture land at Cliveden Stud, immediately to the north of Taplow, Buckinghamshire (Fig 1). This area, centred approximately at national grid reference SU 9138 8377, is proposed for the creation of a polo pitch, exercise track, irrigation pond and hard standing (Radford 2007).

The survey was carried out in July 2007.

2 ARCHAEOLOGICAL BACKGROUND

The site lies in an area of known archaeological potential, of regional and national importance, with finds dating from the Lower Palaeolithic period onwards (Radford 2007 & Buckinghamshire Sites and Monuments Record). Taplow may have had continuous settlement from prehistoric times, which include significant prehistoric, Roman and Saxon occupation.

A Late Bronze Age or Early Iron Age hillfort was recently discovered at Taplow (Buckinghamshire Archaeological Service 1544). This represents a major 'central place' in the Taplow Landscape. The significance of this landscape at that time is evident from metalwork finds recovered from the River Thames (Farley 1995). To the east of Taplow village a Middle Iron Age settlement and field system was identified when a cross-country water pipeline from Taplow to Dorney was laid (Cotswolds Archaeology 2005). In the vicinity of the hillfort Roman finds have been discovered, and located within the hillfort there is a Scheduled Anglo-Saxon barrow dating to the seventh century. At Dorney, further south, on the Thames floodplain multi-period remains have been recorded (Allen & Welsh 1997).

3 TOPOGRAPHY AND GEOLOGY

The proposed development area (Fig 1) occupies a parcel of land, comprising eight fields, bounded by Hunt's Lane to the east Cliveden Road to the west and to the north by Huntswood Lane. It is currently used as stables and pasture for horses. The River Thames runs 400m to the west of the site. The geology is believed to be a drift of Undifferentiated River Terraces (glacial sand and gravel), over a solid geology of chalk (Geological Survey of Great Britain, Sheet 255). Such fluvio-glacial drift geologies tend to produce magnetic datasets of variable quality (Gaffney & Gater 2003, 79).

Small areas of Field 8 were found to be unsurveyable due to overgrown thistles and other vegetation.

4 METHODOLOGY

Fieldwork

The survey progressed according the methods set out in the Brief and Project Design (Radford 2007 & NA 2007) The development area was surveyed on a field by field basis, with each field being allocated a separate block number (Fig 1). Each block was sub-divided into 30m x 30m grid-squares, which formed the basic unit of survey. These were laid out manually, using tapes and an optical square.

The survey was conducted with Bartington Grad601-2, twin sensor array, vertical component, fluxgate gradiometers. These instruments were carried at a brisk but steady pace through each grid, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per grid.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage and by the Institute of Field Archaeologists (EH 1995 & Gaffney, Gater and Ovendon 2002)

Data processing

The data was displayed and processed using Geoplot 3.00t software. In accordance with our normal policy, minimal processing was carried out on the data. The 'Zero Mean Traverse' function was applied as a standard in order to balance the data to zero. Other functions were applied only where necessary to correct specific data flaws.

The processed data is presented in this report in the form of greyscale plots (clipped scale +3.0nT to -3.0nT black ~ white; Figs 2, 3and 4). Interpretative plots (Figs 3 and 4) have been overlaid on the

greyscales to aid in the discussion. Sample 'Stacked Trace Plots' have been included in Figure 5 to illustrate the relative intensity of magnetic anomalies.

5 SURVEY RESULTS

The following section details the results of the geophysical survey. Overall a large number of 'pit-like' discrete positive magnetic anomalies were detected. For ease, these anomalies are referred to throughout as 'pits' although their identification as such archaeological features remain equivocal, small quarries, tree throws and geological changes are also distinct possibilities as the sources.

Field 1

The survey did identify potential archaeological anomalies (Fig 3). These were in the form of several lengths of ditch, one forming a right angle, and twelve amorphous shaped features possibly representing pits. A modern utility was also detected. The high negative magnetic region to the south of the grid results from an iron gate. Similar anomalies were evident in all fields.

Field 2

The survey (Fig 3) yielded one possible archaeological feature, a small length of ditch running north-west to south-east. The linear anomaly identified on the east side of the field was the same modern utility that was identified in Field 1. Two areas of highly negative magnetism were recorded relating to metal gates but also an area of high positive magnetic anomaly, the result of a horse shed.

Field 3

A weak linear feature, running north-west to south-east, extending into Field 7 was identified (Fig 4). Seven other amorphous features were revealed representing pits and possibly two short lengths of ditch. The survey identified a modern utility running north-east to south-west along the eastern edge of the field. An area of strongly negative magnetism was identified in the north-east corner relates to the horse shed.

Field 4

Seven short lengths of ditch, all oriented north-east to south-west were identified (Fig 3). Two other lengths of ditch features were recorded, one orientated north-west to south-east the other a curvilinear length in the west of the field. Seven amorphous pit-like features were also identified. The same modern utility was identified on the eastern edge of the field as were the effects of metal gates and the horse shed.

Field 5

The field (Fig 4) is bisected diagonally by a modern utility running north-east to south-west, likely linking up with the one identified in the other fields on the west side of the survey area (Fig 3). Running parallel to this modern utility is two short lengths of possible ditch one in the southwest corner and the other in the northeast corner of the field. A third ditch can be seen running northwest to southeast. It is truncated by the modern utility. The field also displays possible pits in the north of the field.

Field 6

A single linear feature running north-west to south-east was detected in Field 6 (Fig 3). This could be a former field boundary, visible on the map attached to the Brief (Radford 2007), although the entire area appears to be undivided on the 1876 (1:2500) and 1882 (1:10,560) Ordnance Survey mapping (www.old-maps.co.uk accessed 03/07/07). To the north of the field there are several lengths of possible ditches. One is curvilinear, the others are irregular in shape.

Field 7

Three linear features, orientated north-west to south-east, were identified in the survey along with two smaller lengths of ditch that were orientated north-east to south-west (Fig 4). Four amorphous pit-like features were also detected in the survey. The effects of iron gates and the horse shed are evident in the data.

Field 8

An apparently random distribution of amorphous anomalies that may represent pitting and short lengths of possible ditch orientated north-east to south-west, was located in the data from this field (Fig 4). In the centre of the plot there is evidence of a putative circular enclosure. However, due to small blocks of missing data (see above, para 3), the identification is uncertain. There is also magnetic evidence of metal gates and horse sheds.

6 CONCLUSIONS

This survey has identified and mapped possible areas of archaeological features. They remain undated, lacking either diagnostic elements or association with surface finds. Many of the 'pit-like' discrete positive anomalies, when examined for their magnetic form (Fig 5) lack the diagnostic shape of positive anomaly with a negative magnetic 'shadow' to the north. However, the probable former line of a field boundary was located in Field 6 and a putative circular ditched enclosure in Field 8. The line of ferrous utilities was traced in Fields 1-5.

The magnetic anomalies in the Cliveden Stud survey bear a marked resemblance to those identified

by the Bartlett-Clark Consultancy (Bartlett 2003) on the northern edge of Taplow, approximately 900m to the south of Field 8. Taplow Fields 1, 2 3 and 4, Hitcham Lane towards Boundary Road were found to contain "…a number of pit-like magnetic anomalies…difficult to establish whether the irregularly distributed features are of archaeological or natural origin.." (Bartlett 2003, 7). Cotswold Archaeology (2004) followed up the geophysical survey with trial trench and open area excavation. The results indicated that much of the geophysics correlated with variation in natural sand and gravels, but while locating a number of archaeological features, also failed to identify a many of these.

On this evidence, the majority of the anomalies recorded during the Cliveden Stud survey may be of non-archaeological origin, relating instead to geological deposits.

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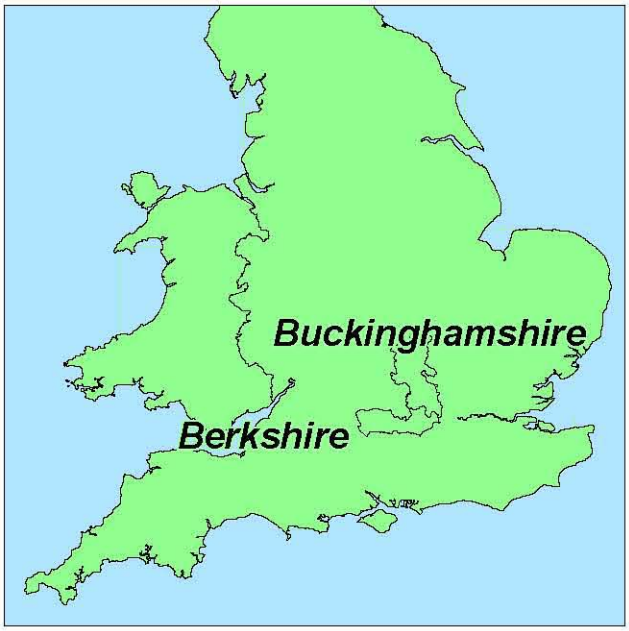
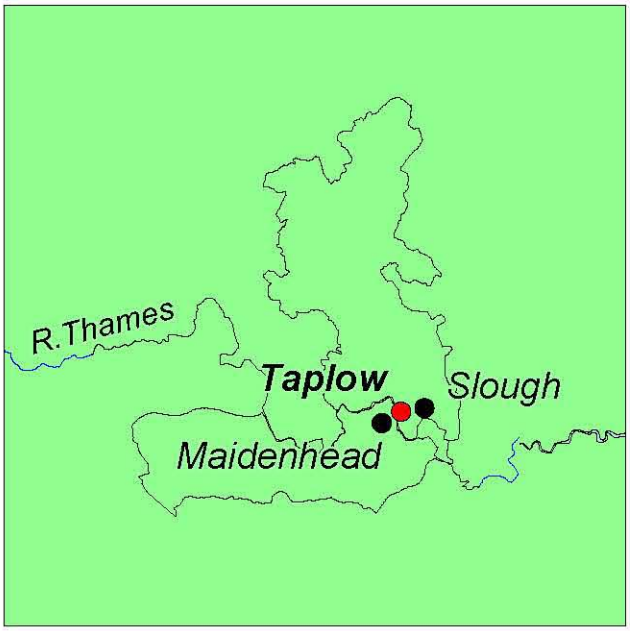
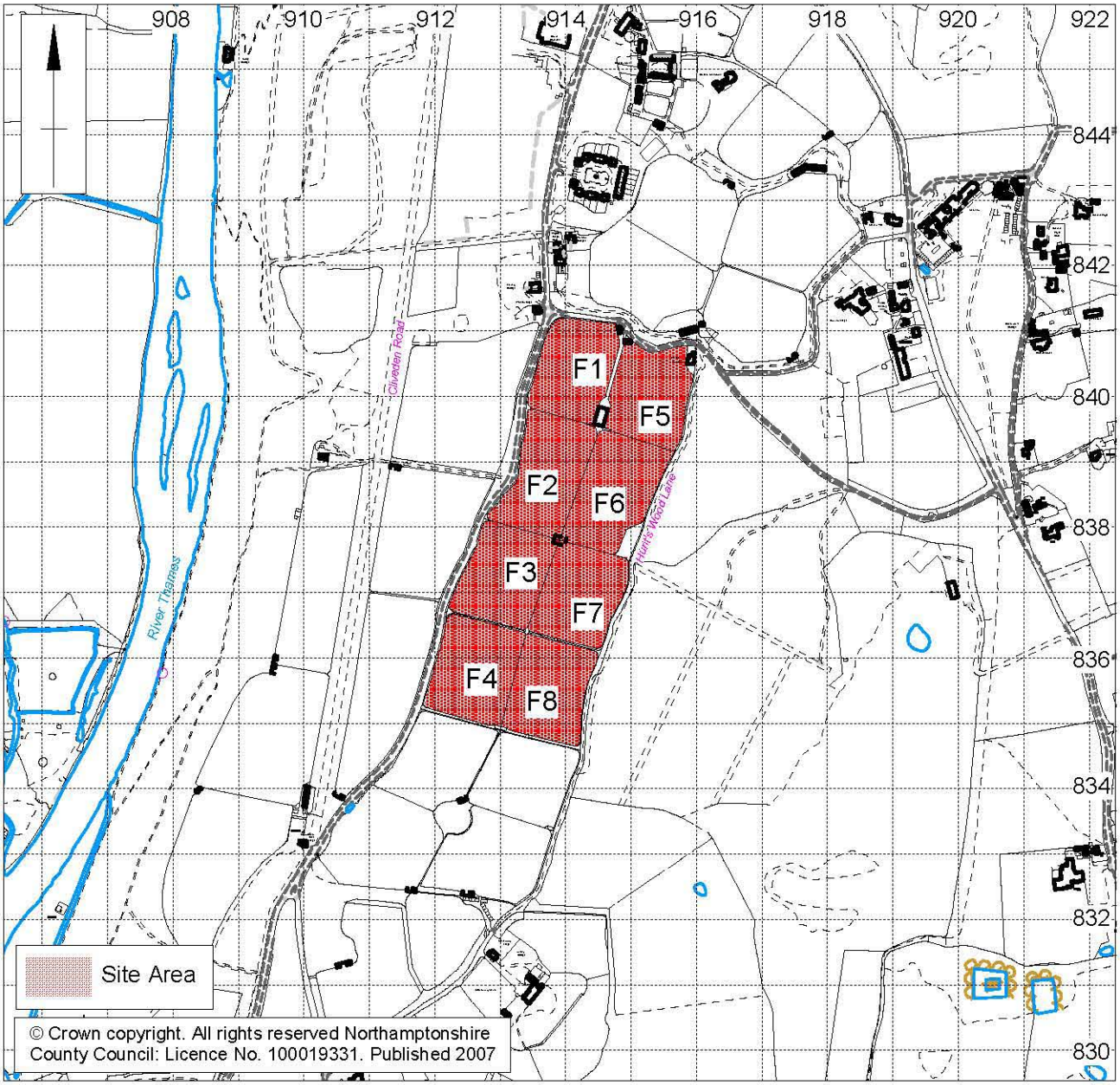
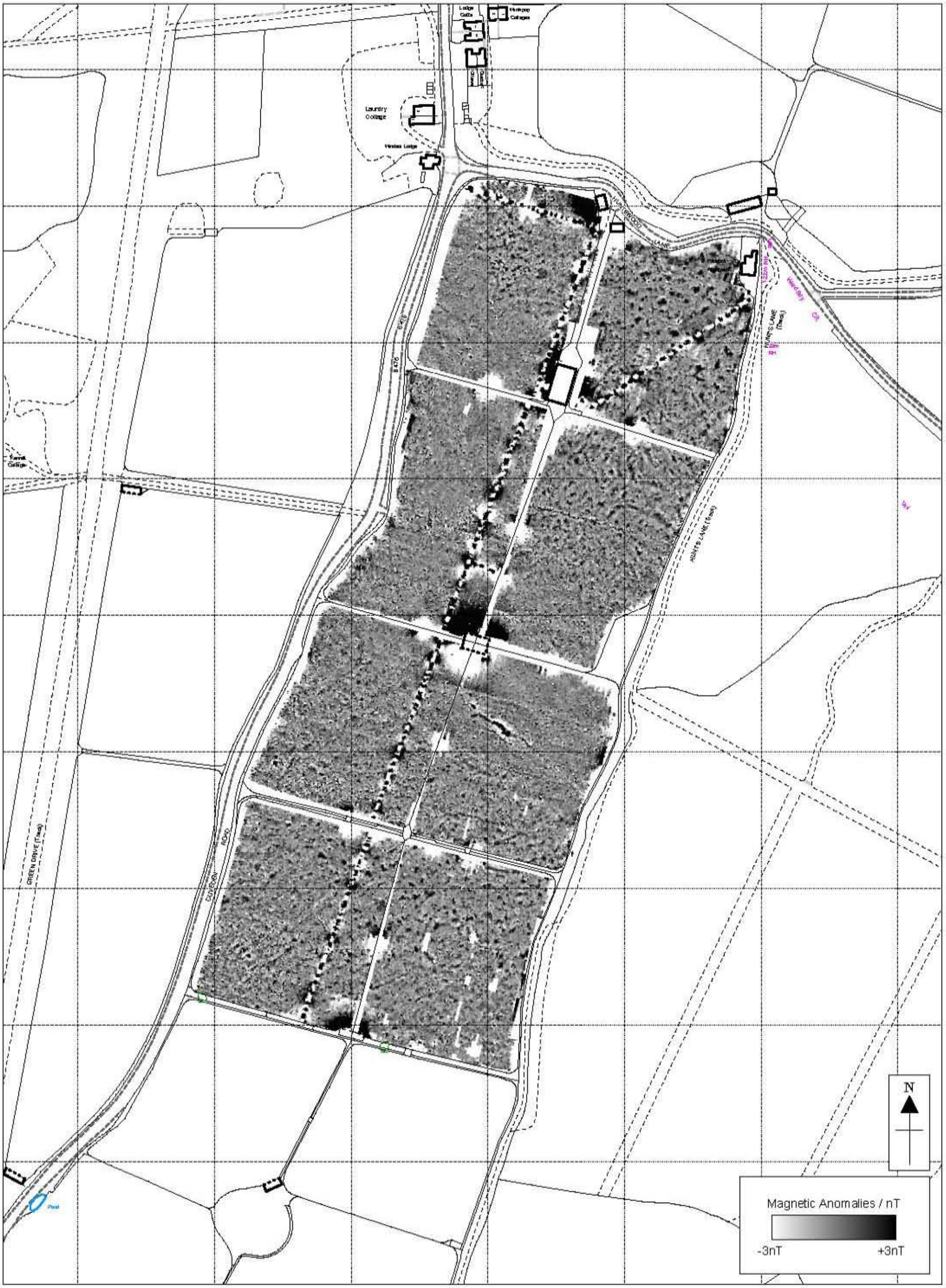






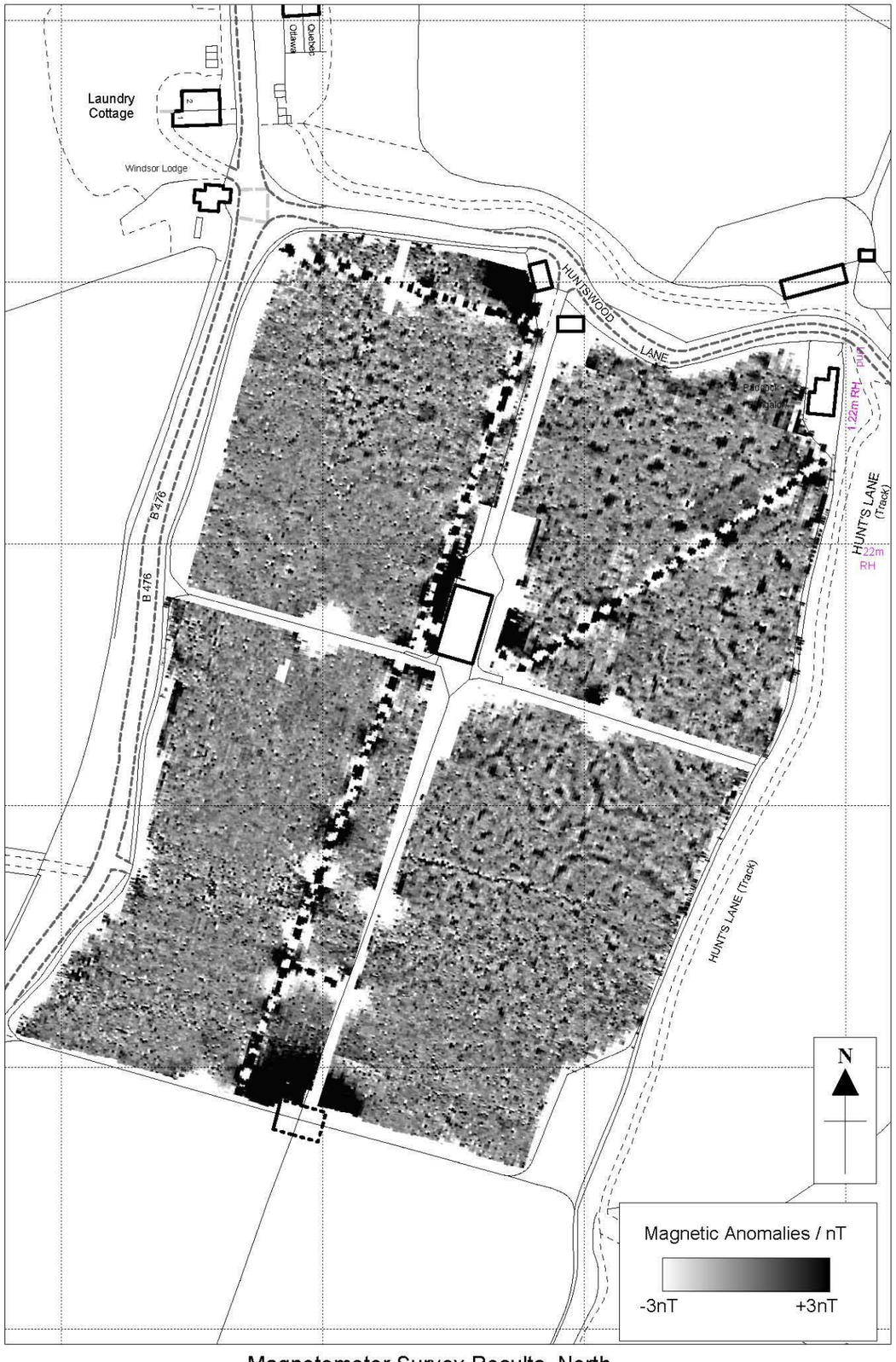
Scale 1:10,000

Site Location Fig. 1



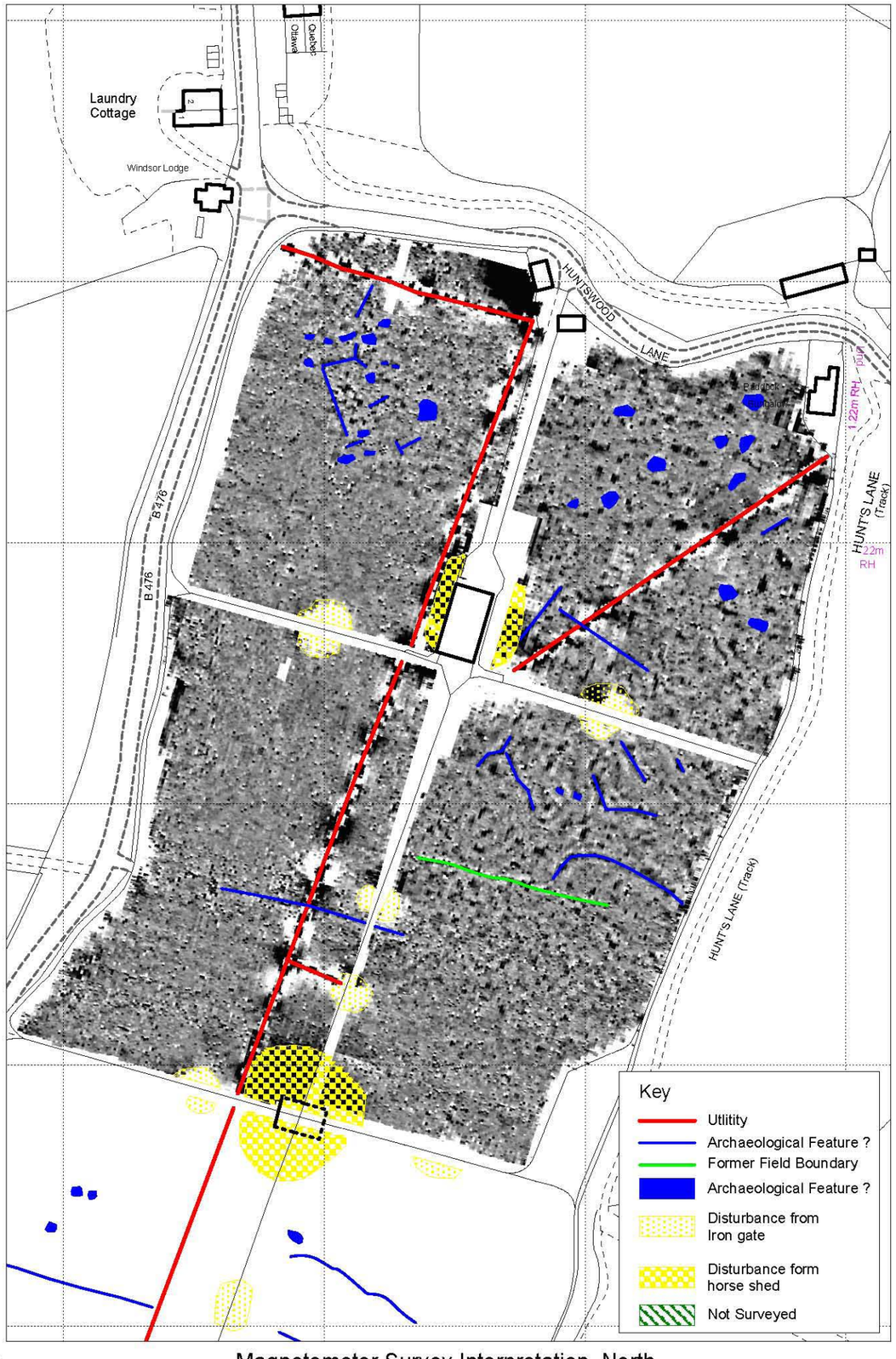
Scale 1:2500

Overall Magnetometer Survey Results Fig. 2



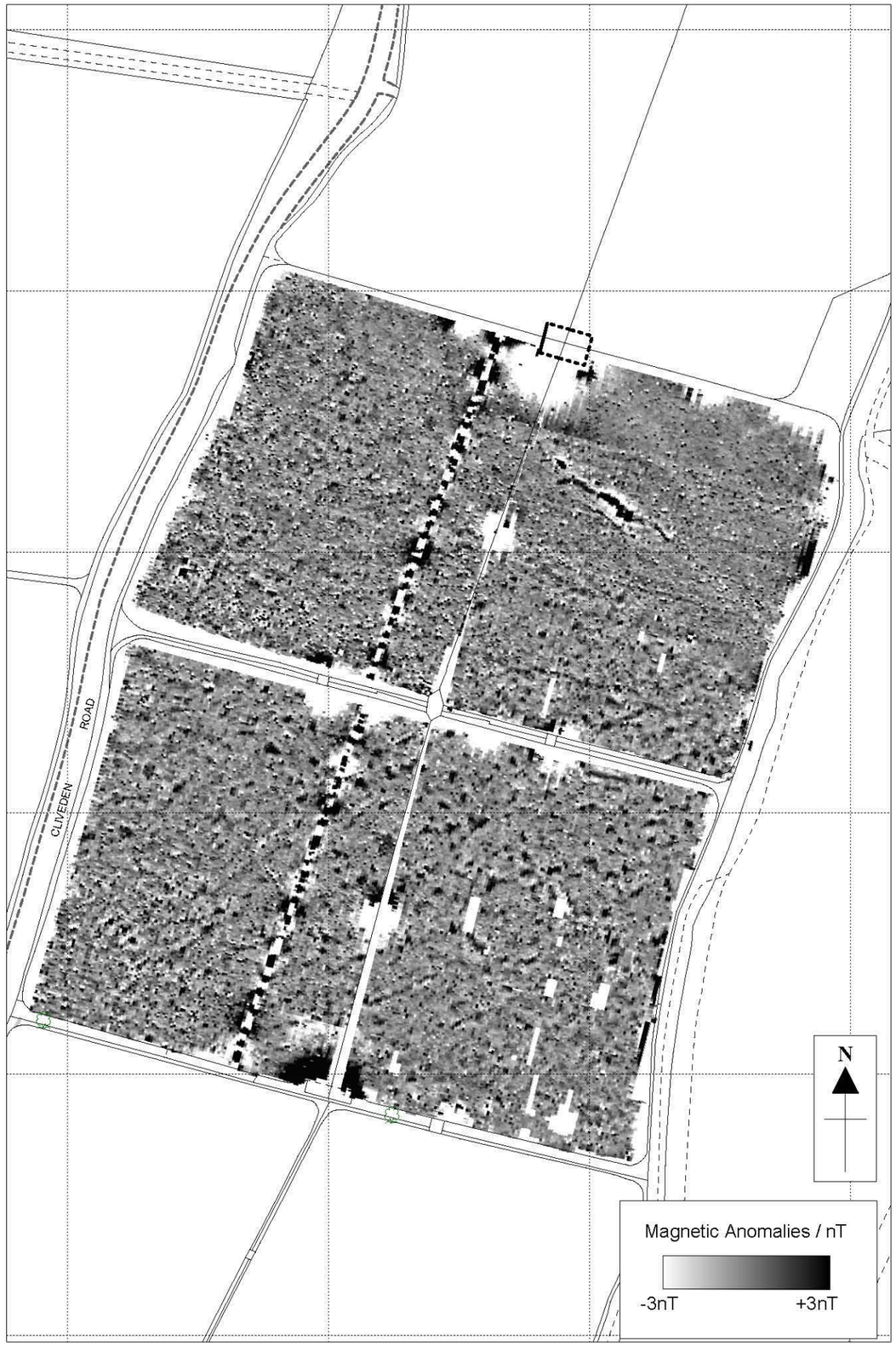
Magnetometer Survey Results, North

Scale 1:2000



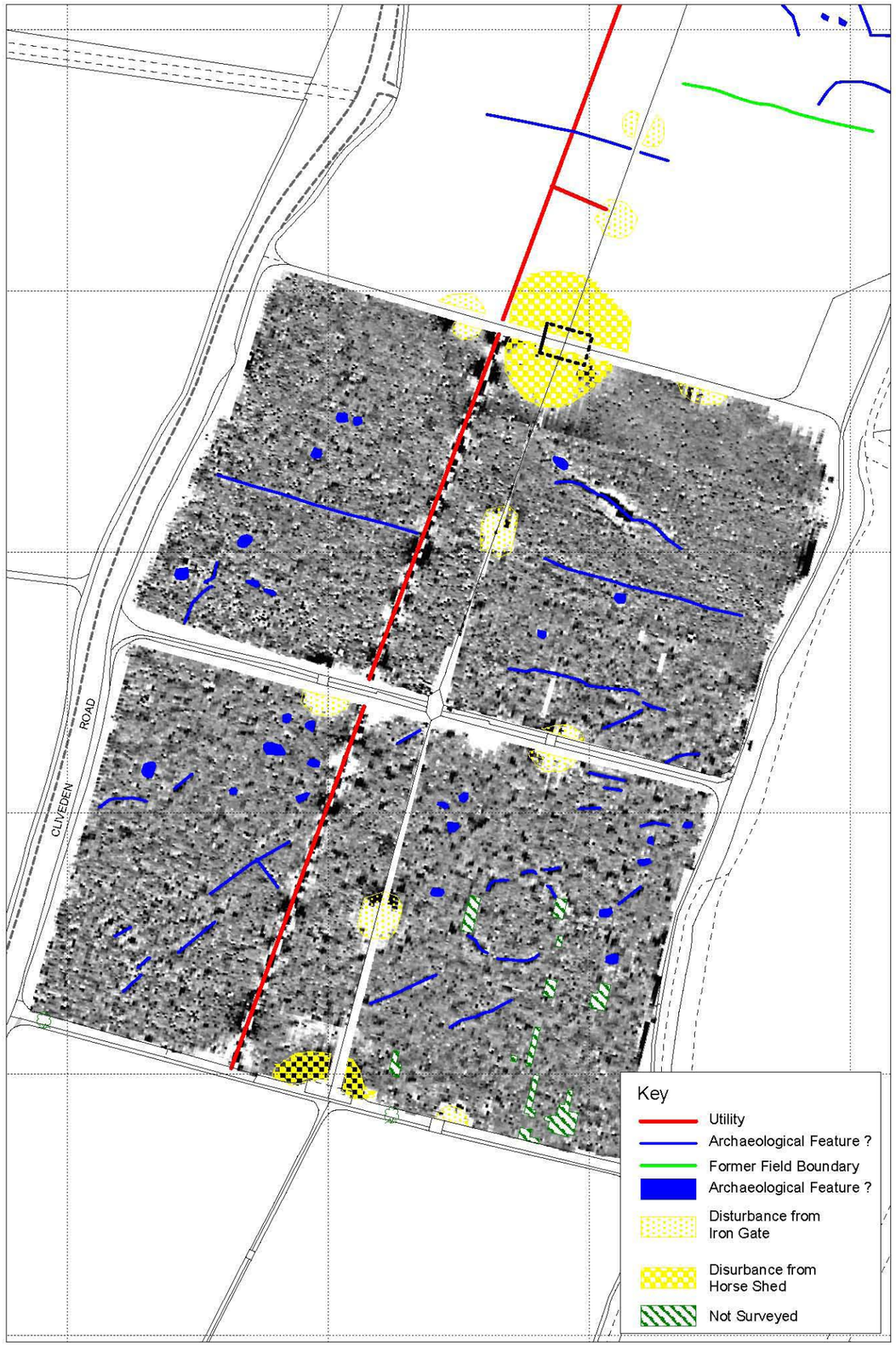
Magnetometer Survey Interpretation, North

Fig. 3



Magnetometer Survey Results, South

Scale 1:2000



Magnetometer Survey Interpretation, South

Fig. 4